

5. The method of claim 4, wherein the obtaining of the bio impedance of the examinee comprises:

obtaining the bio impedance of the examinee by using Equation 1:

$$Z_m = Z_{AP} \frac{(\beta + Z_i)(\beta + Z_s)}{Z_{AP}(2\beta + Z_i + Z_s) + Z_i Z_s} \quad \text{Equation 1}$$

where β is defined by Equation 2,

$$\beta = \frac{2}{\frac{1}{Z_{2P}} - \frac{1}{Z_i} - \frac{1}{Z_s}} \quad \text{Equation 2}$$

where Z_{AP} =a first impedance value, Z_{2P} =a second impedance value, Z_i =an input impedance value of the impedance measurer, and Z_s =the internal impedance of the current source.

6. The method of claim 1, further comprising:

changing an effective value of the internal impedance of the current source by connecting a parallel impedance to the current source.

7. The method of claim 6, wherein the parallel impedance is smaller than the internal impedance of the current source.

8. The method of claim 2, wherein contact impedance values between the first, second, third and fourth electrodes and the surface of the examinee have different impedance values, respectively.

9. The method of claim 8, wherein when the impedance measurer operates according to the second mode, the current source is connected between the second electrode and the fourth electrode, and the voltmeter is connected between the second electrode and the third electrode, and

the first electrode is electrically disconnected from the current source.

10. The method of claim 9, further comprising:

switching the impedance measurer to a third mode; and measuring a third impedance value of the examinee when the impedance measurer operates according to the third mode,

wherein when the impedance measurer operates according to the third mode, the current source is connected between the first electrode and the fourth electrode, and the voltmeter is connected between the first electrode and the third electrode, and

the second electrode is electrically disconnected from the current source.

11. The method of claim 10, further comprising:

switching the impedance measurer to a fourth mode; and measuring a fourth impedance value of the examinee when the impedance measurer operates according to the fourth mode,

wherein when the impedance measurer operates according to the fourth mode, the current source is connected between the first electrode and the fourth electrode, and the voltmeter is connected between the second electrode and the fourth electrode, and

the third electrode is electrically disconnected from the current source.

12. The method of claim 11, further comprising:

switching the impedance measurer to a fifth mode; and measuring a fifth impedance value of the examinee when the impedance measurer operates according to the fifth mode,

wherein when the impedance measurer operates according to the fifth mode, the current source is connected between the first electrode and the third electrode, and the voltmeter is connected between the second electrode and the third electrode, and

the fourth electrode is electrically disconnected from the current source.

13. The method of claim 12, wherein the obtaining of the bio impedance of the examinee comprises:

obtaining the bio impedance of the examinee by compensating for an effect of contact impedance values between the first, second, third and fourth electrodes and the surface of the examinee in the first, second, third, fourth and fifth impedance values.

14. The method of claim 1, further comprising:

outputting bio information of the examinee based on the bio impedance of the examinee.

15. The method of claim 14, wherein the bio information of the examinee comprises at least one of a body fat amount of the examinee, a basal metabolic amount of the examinee, a skeletal muscle amount of the examinee, a blood flow amount of the examinee, a breathing rate of the examinee, a heart rate of the examinee, and heart rate variation of the examinee.

16. A method of measuring a bio signal using a bio signal measuring apparatus, the method comprising:

positioning electrodes included as part of the bio signal measuring apparatus to contact a surface of an examinee;

switching an impedance measurer included as part of the bio signal measuring apparatus and comprising an amperemeter, a voltmeter, and a current source, to a first mode, the current source inducing an internal impedance;

measuring, by using the amperemeter, a current amount supplied from the current source to the electrodes when the impedance measurer operates according to the first mode;

determining a first impedance value of the examinee based on a current amount supplied to the electrodes and a voltage measured by the voltmeter when the impedance measurer operates according to the first mode;

switching the impedance measurer to a second mode;

measuring, by using the amperemeter, a current amount supplied from the current source to the electrodes when the impedance measurer operates according to the second mode;

determining a second impedance value of the examinee based on a current amount supplied to the electrodes and a voltage measured by the voltmeter when the impedance measurer operates according to the second mode; and

obtaining bio impedance of the examinee based on the first and second impedance values.

17. The method of claim 16, further comprising:

outputting bio information of the examinee based on the bio impedance of the examinee.